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EXAMINER

HERRERA, DIEGO D

ART UNIT

PAPER NUMBER

2617

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/528,003	<b>Applicant(s)</b> FRANCESCHINI ET AL.	
	<b>Examiner</b> DIEGO HERRERA	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 9 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, and 11-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

Claims 1-8 have been amended.

Claims 9-10 have been cancelled.

Claims 11-27 have been added as new claims.

### ***Specification***

Specification was amended to include “(step D13)”.

### ***Drawings***

Drawings have been submitted in replacement sheets, also corrections have been submitted found in “Applicant arguments/remarks made in an amendment” dated 12/23/2008.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-8, and 11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-8, and 11 are drawn to a “program” *per se* as recited in the preamble and as such is non-statutory subject matter. See MPEP § 2106.IV.B.1.a. Data structures not claimed as embodied in computer readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do

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not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed computer readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized. Hence, the "computer-implemented" renders the claims non-statutory, the more acceptable form of stating a computer executable program by a processor is preferred, for example: when stating computer-processing related claims "computer readable medium encoded with a computer executable instructions". Furthermore, is noted that the claims dependent on claim 1 lack the same preamble uniformity. This is in fact if the applicant is trying to claim a computer processing to the claims in question; It is not clear if this is what the applicant intends by adding "computer-implemented" to the method claims, hence, this rejection is applied.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 7, 24, and 26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The "pole capacity" term is nowhere to be defined in the specification.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

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were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-8, and 11-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furuskar et al. (US 20020102984), and in view of Cao et al. (US 20020089952 A1).

**Regarding claim 1:** Furuskar et al. discloses a computer-implemented method for dimensioning a network based on Code Division Multiple Access (CDMA) techniques (§: 3, Furuskar et al. teaches CDMA system) comprising:  
determining a load factor per cell of based on input parameters for each cell (fig. 1-2, §: 19, Furuskar et al. teaches cell capacity, power control, attenuation);  
verifying whether the determined load factor is equal to, less than, or greater than a maximum load sustainable by the cell; and, if the determined load factor exceeds the maximum sustainable load (§: 9, 21, Furuskar et al. teaches maximum or high load), however, Furuskar et al. does not specifically teaches dynamically negotiating at a Radio Resource Management level, radio resources to be allocated to at least one of a plurality of services provided by the network into the cell such that the determined load factor per cell is smaller than or equal to the maximum sustainable load or is optimized by taking into account the characteristics of the network, nevertheless, Cao et al. does teach the limitation (paragraph [0007], [0009]-[0012], [0021], Cao et al. teaches RRM).

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Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made by Furuskar et al. to specifically include dynamically negotiating at a Radio Resource Management level, radio resources to be allocated to at least one of a plurality of services provided by the network into the cell such that the determined load factor per cell is smaller than or equal to the maximum sustainable load or is optimized by taking into account the characteristics of the network as taught by Cao et al. for the purposes of packet transmission scheduling.

**Regarding claim 7:** Furuskar et al. discloses a computer-implemented method for dimensioning a network based on Code Division Multiple Access (CDMA) techniques: determining a load factor per cell for each cell by means of “link budget” for an uplink radio path (¶: 7, 25-26, 29-30, Furuskar et al. teaches load factor determination for links in radio paths);

verifying whether the determined load factor per cell corresponds to the maximum load sustainable by the cell (fig. 1-2, ¶: 19, Furuskar et al. teaches cell capacity, power control, attenuation);

if the determined load factor per cell corresponds to the maximum load sustainable by the cell, determining by “pole capacity” a number of radio channels and an occupation of a code tree for each cell for a downlink radio path (fig. 1-2, ¶: 19, Furuskar et al. teaches cell capacity, power control, attenuation);

verifying whether codes corresponding to at least one of a plurality of services provided by the network can be hosted on the code tree (¶: 21-22, 33-39, Furuskar et al. teaches system, method, protocols, and structure that allows to have codes been handled by

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radio resources management system in place); and, if the code tree cannot host all the codes, (¶: 35-39, Furuskar et al. teaches threshold monitoring and other known methods to control services that exceed these thresholds, one being power); then, Furuskar et al. does not disclose dynamically negotiating the radio resources to be allocated to the service at the Radio Resource Management level so as to update the maximum sustainable load, nevertheless, Cao et al. does teach a RRM that dynamically negotiates radio resources to allocate through out the network to avoid congestion (¶: 7, 9-12, 21, Cao et al. teaches RRM). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to specifically include a Radio Resource Management to dynamically negotiate radio resources to allocate through out the network to avoid congestion, as taught by Cao et al. for the purposes of packet transmission scheduling avoiding collisions and congestions and interference.

**Regarding claim 12:** Furuskar et al. discloses an apparatus (¶: 38, Furuskar et al. teaches mobile devices and base stations, well known in the art that these devices have computing power that includes processors, memory, transceivers, and other structure components) comprising:  
a processor; and a memory storing instructions that when executed, cause the apparatus (¶: 38, Furuskar et al. teaches mobile devices and base stations, well known in the art that these devices have computing power that includes processors, memory, transceivers, and other structure components) to:

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determine a load factor per cell based on input parameters for each cell (fig. 1-2, ¶: 19, Furuskar et al. teaches cell capacity, power control, attenuation);

verify whether the determined load factor corresponds to a maximum load sustainable by the cell (¶: 9, 21, Furuskar et al. teaches maximum or high load); and,

if the determined load factor exceeds the maximum sustainable load (¶: 35-39, Furuskar et al. teaches threshold monitoring and other known methods to control services that exceed these thresholds, one being power); then, Furuskar et al. does not disclose dynamically negotiating the radio resources to be allocated to the service at the Radio Resource Management level so as to update the maximum sustainable load, nevertheless, Cao et al. does teach a RRM that dynamically negotiates radio resources to allocate through out the network to avoid congestion (¶: 7, 9-12, 21, Cao et al. teaches RRM). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to specifically include a Radio Resource Management to dynamically negotiate radio resources to allocate through out the network to avoid congestion, as taught by Cao et al. for the purposes of packet transmission scheduling avoiding collisions and congestions and interference.

**Regarding claim 18:** is rejected with same reasons set forth in claim 1.

**Regarding claim 24 :** Furuskar et al. discloses an apparatus comprising: a processor; and a memory storing instructions that when executed (¶: 38, Furuskar et al. teaches mobile devices and base stations, well known in the art that these devices have computing power that includes processors, memory, transceivers, and other structure components), cause the apparatus to:

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determine a load factor per cell for each cell by means of "link budget" for an uplink radio path (fig. 1-2, ¶: 19, Furuskar et al. teaches cell capacity, power control, attenuation);

verify whether the determined load factor per cell corresponds to the maximum load sustainable by the cell (¶: 9, 21, Furuskar et al. teaches maximum or high load);

if the determined load factor per cell corresponds to the maximum load sustainable by the cell (¶: 9, 21, Furuskar et al. teaches maximum or high load), determine by "pole capacity" a number of radio channels and an occupation of a code tree for each cell for a downlink radio path (fig. 1-2, ¶: 19, Furuskar et al. teaches cell capacity, power control, attenuation);

verify whether codes corresponding to at least one of a plurality of services provided by the network can be hosted on the code tree (¶: 21-22, 33-39, Furuskar et al. teaches system, method, protocols, and structure that allows to have codes been handled by radio resources management system in place); and, if the code tree cannot host all the codes, then, Furuskar et al. does not disclose dynamically negotiating the radio resources to be allocated to the service at the Radio Resource Management level so as to update the maximum sustainable load, nevertheless, Cao et al. does teach a RRM that dynamically negotiates radio resources to allocate through out the network to avoid congestion (¶:7, 9-12, 21, Cao et al. teaches RRM). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to specifically include a Radio Resource Management to dynamically negotiate radio resources to allocate through out the network to avoid congestion, as taught by Cao et

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al. for the purposes of packet transmission scheduling avoiding collisions and congestions and interference.

**Consider claim 26:** Furuskar et al. discloses one or more computer-readable media, that when executed by a processor (¶: 38, Furuskar et al. teaches mobile devices and base stations, well known in the art that these devices have computing power that includes processors, memory, transceivers, and other structure components), perform: determining, at a computing device, a load factor per cell for each cell by means of "link budget" for an uplink radio path (fig. 1-2, ¶: 19, Furuskar et al. teaches cell capacity, power control, attenuation); verifying whether the determined load factor per cell corresponds to the maximum load sustainable by the cell (¶: 9, 21, Furuskar et al. teaches maximum or high load); if the determined load factor per cell corresponds to the maximum load sustainable by the cell (¶: 35-39, Furuskar et al. teaches threshold monitoring and other known methods to control services that exceed these thresholds, one being power), determining by means of "pole capacity" a number of radio channels and an occupation of a code tree for each cell for a downlink radio path (fig. 1-2, ¶: 19, Furuskar et al. teaches cell capacity, power control, attenuation); verifying whether codes corresponding to at least one of a plurality of services provided by the network can be hosted on the code tree (¶: 21-22, 33-39, Furuskar et al. teaches system, method, protocols, and structure that allows to have codes been handled by radio resources management system in place); and, if the code tree cannot host all the codes, however, Furuskar et al. does not discloses

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dynamically negotiating the radio resources to be allocated to the service at the Radio Resource Management level so as to update the maximum sustainable load, nevertheless, Cao et al. does teach a RRM that dynamically negotiates radio resources to allocate through out the network to avoid congestion (¶:7, 9-12, 21, Cao et al. teaches RRM). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to specifically include a Radio Resource Management to dynamically negotiate radio resources to allocate through out the network to avoid congestion, as taught by Cao et al. for the purposes of packet transmission scheduling avoiding collisions and congestions and interference.

**Consider claim 2:** The method as claimed in claim 1 wherein the determined load factor per cell is determined by attributing a normal or Gaussian distribution in decibels to a ratio between a useful signal power and a total interference density of the cell (¶: 34-35, Furuskar et al. teaches normal distribution in decibels).

**Consider claim 3:** The method as claimed in claim 2, wherein the determining the load factor per cell is carried out for an uplink radio path (¶: 7, 25-26, 29-30, Furuskar et al. teaches load factor determination for links in radio paths).

**Consider claim 4:** The method as claimed in claim 3, wherein the dynamically negotiating the radio resources to be allocated to at least one of the services provided by the network in the cell comprises dynamically negotiating one of packet scheduling (paragraph 0003, Cao et al. teaches packet scheduling), congestion control (paragraph 0009-0012, Cao et al. teaches controlling load with QoS), and admission control (paragraph 58, 59, Cao et al. teaches admission control).

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**Consider claim 5:** The method as claimed in claim 2, wherein the determining the load factor per cell is carried out for a downlink radio path (paragraph [0019], Furuskar et al. teaches cell capacity, power control, and attenuation).

**Consider claim 6:** The method as claimed in claim 5, wherein dynamically negotiating the radio resources to be allocated to at least one of the services provided by the network in the cell comprises dynamically negotiating one of code management (§§: 84-87, Cao et al. teaches management of codes), power management (§§: 119-121, Cao et al. teaches power constraints), packet scheduling (§§: 3, Cao et al. teaches packet scheduling), congestion control (§§: 9-12, Cao et al. teaches controlling load with QoS), and admission control (§§: 58-59, Cao et al. teaches admission control).

**Consider claim 8:** The method as claimed in claim 7, further comprising:  
determining for each service a load factor per cell and corresponding values of power per channel for the downlink radio path (§§: 19, Furuskar et al. teaches cell capacity, power control, attenuation);  
verifying whether the power per channel of at least one service exceeds power limits prescribed for the service (fig. 1-2, and 4-5, §§: 9, 21, Furuskar et al. teaches maximum and high load thresholds, see Furuskar et al. reference for further explanation); and,  
if the power per channel of at least one service exceeds the prescribed power limits (§§: 35-39, Furuskar et al. teaches threshold monitoring and other known methods to control services that exceed these thresholds, one being power); however, Furuskar et al. does not disclose dynamically negotiating the radio resources to be allocated to the service at the Radio Resource Management level so as to update the maximum sustainable

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load, nevertheless, Cao et al. does teach a RRM that dynamically negotiates radio resources to allocate through out the network to avoid congestion (§7, 9-12, 21, Cao et al. teaches RRM). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to specifically include a Radio Resource Management to dynamically negotiate radio resources to allocate through out the network to avoid congestion, as taught by Cao et al. for the purposes of packet transmission scheduling avoiding collisions and congestions and interference.

**Consider claim 11:** The method of claim 1, wherein the determined load factor per cell is optimized by taking into account the characteristics of the network (§33, Cao et al. teaches optimizing by a characteristic of the network by doing so the load factor per cell is optimized).

**Consider claim 13:** The apparatus of claim 12, wherein the determined load factor per cell is determined by attributing a normal or Gaussian distribution in decibels to a ratio between a useful signal power and a total interference density of the cell (§34-35, Furuskar et al. teaches normal distribution in decibels).

**Consider claim 14:** The apparatus of claim 13, wherein determining the load factor per cell is carried out for an uplink radio path (§7, 25-26, 29-30, Furuskar et al. teaches load factor determination for links in radio paths).

**Consider claim 15:** The apparatus of claim 14, wherein dynamically negotiating the radio resources to be allocated to at least one of the services provided by the network in the cell comprises dynamically negotiating one of: packet scheduling (paragraph 0003, Cao et al. teaches packet scheduling), congestion control (paragraph 0009-0012, Cao

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et al. teaches controlling load with QoS), and admission control (paragraph 58, 59, Cao et al. teaches admission control).

**Consider claim 16:** The apparatus of claim 13, wherein determining the load factor per cell is carried out for a downlink radio path (paragraph [0019], Furuskar et al. teaches cell capacity, power control, and attenuation).

**Consider claim 17:** The apparatus of claim 16, wherein dynamically negotiating the radio resources to be allocated to at least one of the services provided by the network in the cell comprises dynamically negotiating one of: code management (§§: 84-87, Cao et al. teaches management of codes), power management (§§: 119-121, Cao et al. teaches power constraints), packet scheduling (§§: 3, Cao et al. teaches packet scheduling), congestion control (§§: 9-12, Cao et al. teaches controlling load with QoS), and admission control (§§: 58-59, Cao et al. teaches admission control).

**Consider claim 19:** The media of claim 18, wherein the determined load factor per cell is determined by attributing a normal or Gaussian distribution in decibels to a ratio between a useful signal power and a total interference density of the cell (§§: 34-35, Furuskar et al. teaches normal distribution in decibels).

**Consider claim 20:** The media & claim 19, wherein determining the load factor per cell is carried out for an uplink radio path (§§: 34-35, Furuskar et al. teaches normal distribution in decibels).

**Consider claim 21:** The media of claim 19, wherein dynamically negotiating the radio resources to be allocated to at least one of the services provided by the network in the cell comprises dynamically negotiating one of: packet scheduling (paragraph 0003, Cao

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et al. teaches packet scheduling), congestion control (paragraph 0009-0012, Cao et al. teaches controlling load with QoS), and admission control (paragraph 58, 59, Cao et al. teaches admission control).

**Consider claim 22:** The media of claim 19, wherein determining the load factor per cell is carried out for a downlink radio path (paragraph [0019], Furuskar et al. teaches cell capacity, power control, and attenuation).

**Consider claim 23:** The media of claim 22, wherein dynamically negotiating the radio resources to be allocated to at least one of the services provided by the network in the cell comprises dynamically negotiating one of: code management (§: 84-87, Cao et al. teaches management of codes), power management (§: 119-121, Cao et al. teaches power constraints), packet scheduling (§: 3, Cao et al. teaches packet scheduling), congestion control (§: 9-12, Cao et al. teaches controlling load with QoS), and admission control (§: 58-59, Cao et al. teaches admission control).

**Consider claim 25:** The apparatus of claim 24, the instructions that when executed further cause the apparatus to:

determine for each service a load factor per cell and corresponding values of power per channel for the downlink radio path (§: 7, 25-26, 29-30, Furuskar et al. teaches load factor determination for links in radio paths);

verify whether the power per channel of at least one service exceeds power limits prescribed for the service (fig. 1-3, Furuskar et al.); and,

if the power per channel of at least one service exceeds the prescribed power limits (§: 35-39, Furuskar et al. teaches threshold monitoring and other known methods to control

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services that exceed these thresholds, one being power); however, Furuskar et al. does not disclose dynamically negotiating the radio resources to be allocated to the service at the Radio Resource Management level so as to update the maximum sustainable load, nevertheless, Cao et al. does teach a RRM that dynamically negotiates radio resources to allocate through out the network to avoid congestion (§:7, 9-12, 21, Cao et al. teaches RRM). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to specifically include a Radio Resource Management to dynamically negotiate radio resources to allocate through out the network to avoid congestion, as taught by Cao et al. for the purposes of packet transmission scheduling avoiding collisions and congestions and interference.

**Consider claim 27:** The media of claim 26, that when executed by the processor, further perform:

determining for each service a load factor per cell and corresponding values of power per channel for the downlink radio path (§: 7, 25-26, 29-30, Furuskar et al. teaches load factor determination for links in radio paths);

verifying whether the power per channel of at least one service exceeds power limits prescribed for the service (fig. 1-3, Furuskar et al.); and,

if the power per channel of at least one service exceeds the prescribed power limits (§: 35-39, Furuskar et al. teaches threshold monitoring and other known methods to control services that exceed these thresholds, one being power); however, Furuskar et al. does not disclose dynamically negotiating the radio resources to be allocated to the service at the Radio Resource Management level so as to update the maximum sustainable

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load, nevertheless, Cao et al. does teach a RRM that dynamically negotiates radio resources to allocate through out the network to avoid congestion (¶:7, 9-12, 21, Cao et al. teaches RRM). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to specifically include a Radio Resource Management to dynamically negotiate radio resources to allocate through out the network to avoid congestion, as taught by Cao et al. for the purposes of packet transmission scheduling avoiding collisions and congestions and interference.

***Examiner's notes***

The examiners objects to the claims having "if" statements...since its illusive and problematic as to if that event will ever happen, the recommendation given is to change "if" statements to that of "when", So that when the event does happen the condition set up will be carried out.

***Response to Arguments***

Applicant's arguments filed 12/23/2008 have been fully considered but they are not persuasive.

In regards to claims 1-8, the applicant's arguments state wherein the references cited, Furuskar and Cao, fail or do not disclose, "dynamically negotiating, at a radio resource management level, radio resources to be allocated to at least one of a plurality of services provided by the network into the cell such that the determined load factor per cell is smaller than or equal to the maximum sustainable load," as recited in claim 1, however, the cited references do disclose and teaches such limitations.

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Please, refer to the reference of Furuskar et al. wherein paragraph 20-22, 24, 35 and 39, teach a radio communication system, with a managing radio resources, wherein different types of measurements are determined to reach a stability, since, services may differ it requires the service mix-adaptive management schemes, hence, dynamically determining radio resources to be allocated.

Please, refer to the reference of Cao et al. wherein further teachings of radio resource allocation are found in paragraphs 38-53, further explaining how radio resource allocation is determined and adjusted with the equations presented to adapt to changing environments.

Therefore, by applying these two references, Furuskar et al. and Cao et al., one can see that the limits of the service group are maintain below or equal to the maximum load to avoid known problems of congestion and among other problems, hence, meeting the limitations of the claims argued by the applicant.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIEGO HERRERA whose telephone number is (571)272-0907. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Diego Herrera/

Examiner, Art Unit 2617

/Lester Kincaid/

Supervisory Patent Examiner, Art Unit 2617